Dr. TAN Jen Hong

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Profile

Jen Hong develops algorithms. He specializes in computer vision, image processing and medical image diagnosis. He loves designing illustration and composing pieces for orchestra.

He has more than 9 years of experience in inventing AI solutions for health care diagnostics. He has worked in several research projects that published more than 20 highly cited research papers. Besides that, he has also developed an award-winning AI for dry-eye diagnosis using infrared thermography.

He was the co-Principal Investigator of 6 research grants and 3 clinical trials. He and his team member co-developed algorithms to diagnose breast cancer, ovarian cancer, heart attack, fatty liver, diabetic retinopathy, epilepsy and glaucoma.

Worldwide his publications are cited more than 11,000 times on his 90+ academic publications. He was awarded the 'Highly Cited Researchers' by Clarivate Web of Science (Top 0.1% worldwide) in the category of Computer Science in 2020, 2021 and 2022. In 2022, he was awarded with the 2022 Rising Star of Science Award by Research.com, in which he was ranked 18 in Singapore and 909 worldwide.

Educational Qualifications

- Ph.D. (Biomedical Engineering), Nanyang Technological University
- Bachelor of Engineering (Mechanical & Production Engineering), Minor in Chinese, Nanyang Technological University

Selected Publications

- J. H. Tan, H. Fujita, S. Sivaprasad, S. V. Bhandary, A. Krishna Rao, K. C. Chua, U. R. Acharya, Automated segmentation of exudates, haemorrhages, microaneurysms using single convolutional neural network, Information Sciences, Volume 420, 2017, Pg. 66-76

- J. H. Tan, Y. Hagiwara, W. Pang, I. Lim, S. L. Oh, M. Adam, R. S. Tan, M. Chen, U. R. Acharya, Application of stacked convolutional and long short-term memory network for accurate identification of CAD ECG signals, Computers in Biology and Medicine, Volume 94, 2018, Pg. 19-26

- J. H. Tan, U. R. Acharya, S. V. Bhandary, K. C. Chua, S. Sivaprasad, Segmentation of optic disc, fovea and retinal vasculature using a single convolutional neural network, Journal of Computational Science, Volume 20, 2017, Pg 70-79

More on Google Scholar (https://scholar.google.com.sg/citations?user=uJlD-A0AAAAJ&hl=en)

What I Teach

ARTIFICIAL INTELLIGENCE

Problem Solving using Pattern Recognition

ARTIFICIAL INTELLIGENCE

Intelligent Sensing and Sense Making

ARTIFICIAL INTELLIGENCE

Pattern Recognition and Machine Learning Systems

ARTIFICIAL INTELLIGENCE

Vision Systems

ARTIFICIAL INTELLIGENCE

Real Time Audio-Visual Sensing and Sense Making

DATA SCIENCE

Data Storytelling

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Analytics for Commercial Excellence

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Explainable and Responsible AI for Finance

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